

## SYDELLA.

Coral erect (?), straight, cylindrical, rather tapering, covered with cylindrical cells, tapering at the end and placed in four rather irregular longitudinal series, covered externally with red fusiform spicules, placed very close together in a longitudinal direction. Polypes completely retractile, leaving a small rounded end to the cell when retracted.

Only known from the figure of Dr. Hooker, which apparently represents the apex of a branch, and does not show any internal axis if one exists.

This figure is here accurately copied.

SYDELLA AUSTRALIS. (Plate LXIII. figs. 8 & 9.)

*Hab.* Australia, Sydney (*Dr. Hooker*).

*Mopsella australis*.—There is a beautiful figure in Dr. Hooker's drawings of a coral which I believe is the same as the one here described; but it is much larger and the polypes much closer: there is no representation of the axis. No habitat is mentioned. This drawing is copied, with the rest of Dr. Hooker's drawings, on Plate LXIII.

## EXPLANATION OF THE PLATES.

## PLATE LXII.

Figs. 1-3. *Fannyella rossii*.

4. *Primnoa lepadifera*, polype-cell from North Sea for comparison.

5 & 6. *Errina fissurata*.

7-9. *Mopsella australis*.

(All from Mr. Stokes's drawings.)

## PLATE LXIII.

Figs. 1-3. *Hookerella pulchella*.

4-7. *Tubulipora nivalis*.

8 & 9. *Sydella australis*.

10-12. *Mopsella australis*.

(All from Dr. Hooker's drawings, except figs. 4-7, which are from Mr. Stokes's drawings.)

## PLATE LXIV.

Figs. 1-3. *Thouarella antarctica*.

4. *Porella antarctica*.

(From specimens in the British Museum.)

5. Descriptions of Twenty-four new Species of *Erigone*.

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(Plates LXV. & LXVI.)

With one exception, the Spiders here described, and supposed to be new to science, are European, the single exception being one found near Alexandria, Egypt (*Erigone alexandrina*). One species only (*E. prominula*) has been found also in England; of the remainder two were found at Rome, one in the neighbourhood of Paris, one at

Corfu, one on the Styrian Alps, and the rest near Nuremberg in Bavaria.

It is almost impossible to give, within any reasonable limits, such descriptions of these minute Spiders (many of which are exceedingly nearly allied to others already described) as will make them easily determinable from description alone; magnified figures are therefore given of those portions of their structure upon which, *par excellence*, specific distinctions are based—that is, the form of the cephalothorax and the form and structure of the palpi and palpal organs of the adult males. Wherever possible, the form of the genital aperture in the females is also figured. There are, apart from their minute size, peculiar difficulties in the determination of Spiders of the genus *Erigone* (taking that to include most of *Neriene*, Bl., and all of *Walckenaëra*, id.); but as I am engaged at the present time in collecting materials for an attempt to recast the arrangement of the numerous species contained in it, I do not propose here to enter upon those difficulties, further than to remark that every fair description, and all good figures of the above noted portions of structure of any species supposed to be new to science, will most materially assist towards a complete and satisfactory monograph upon the whole group, which now includes several hundred species.

ERIGONE (NERIENE, Bl.) ARIETANS, sp. n. (Plate LXV. fig. 1.)

Male adult, length  $\frac{1}{16}$  of an inch.

The *cephalothorax* is glossy and of a deep blackish-brown colour, margined with black, the normal grooves and indentations being indicated by yellow-brown; the *legs* are orange-yellow, and the *abdomen* black; the *palpi* are of a dull greenish-yellow colour, the radial and digital joints strongly suffused with black. The fore part of the caput, where the eyes are seated, is a little prominent; the clypeus is impressed in the middle, but prominent at the lower margin, and its height equals two thirds of that of the facial space; the profile line of the cephalothorax is a little depressed near the junction of the caput and thorax.

This species is closely allied to *Neriene subtilis* (Cambr.), which it resembles in the form of the digital joint of the palpus; but the form of the cubital joint is very peculiar, and at once distinguishes it from all other species known to me. This joint is produced to near double its length in front, in an obtusely pointed prominent form; the radial joint is also slightly produced at its extremity, rather on the outer side; the digital joint is large, with a small pointed prominence at its base on the inner side, and a large sub-conical one near the middle on the outer side; the palpal organs are prominent and complex, with corneous spiny processes.

A single example found by Dr. L. Koch at Nuremberg, and sent to me for examination.

ERIGONE (NERIENE, Bl.) INCOMTA, sp. n. (Plate LXV. fig. 2.)

Male adult, length  $\frac{1}{13}$  of an inch.

The *cephalothorax* is of a deep shining black-brown colour, and

has a longitudinal central row of bristly hairs directed forwards, the two hinder ones being the longest and widest apart. The caput and thorax are confluent, and the normal grooves and furrows are not strongly defined; the height of the clypeus exceeds half that of the facial space, and it is rather strongly impressed just below the eyes, and prominent near the lower margin.

The *eyes* are seated on tubercles, those on which the lateral pairs are placed being strong; they are not very unequal in size; those of the hinder row are about equidistant from each other; each eye of the hind central pair is separated from that one of the fore central pair opposite to it by a space not much greater than the diameter of the former. The *legs* are of moderate length, 4, 1, 2, 3; their colour is yellow, the femora and tibiæ being bright orange; and they are furnished with hairs, some of which, on the uppersides, are erect.

The *palpi* are not very long; they are of a greenish-yellow colour suffused with brown, especially on the radial and digital joints; the cubital joint is short, strong, and somewhat gibbous in front; the radial joint is small at its junction with the cubital, but enlarges quickly, and is produced at its outer extremity into a strong, obtusely ending, and slightly bent apophysis; it is also rather prominent (or produced), both at its hinder and inner extremities; the digital joint is large, somewhat truncate at its extremity, beneath which the palpal organs have a strong coiled and rather prominent black spine connected with them; and in contact with it there is some semitransparent, whitish membrane. The *sternum* is heart-shaped, convex, furnished with a few bristly hairs, and similar in colour to the cephalothorax. The *maxillæ* and *labium* are normal in form, and of a rather lighter colour than the sternum.

The *abdomen* is rather large, of an oval form, and moderately convex above; it is glossy, and of a jet-black colour, slightly rugulose, and sparingly furnished with short, strongish hairs; some minute ones have a golden lustre in some lights when in spirit of wine. The *falces* are strong, straight, and nearly vertical; they exceed in length the height of the facial span, and have a cluster of fine sharp teeth towards their inner extremities.

The female is rather larger than the male, and has the abdomen much more convex above; but in colour and other general characters the two sexes are similar.

An adult example of each sex, found near Nuremberg, was received for examination from Dr. L. Koch. It is very nearly allied to *Neriene saxatilis* (Bl.), but may be easily distinguished by the form of the radial joints of the palpi, and by the coiled spine connected with the palpal organs; from *Erigone sundevallii* (Westr.) it may be at once distinguished by the absence of spines beneath the legs of the first two pairs.

ERIGONE (NERIENE, Bl.) FORENSIS, sp. n. (Plate LXV. fig. 3.)

Male adult, length 1 line.

This Spider is of ordinary general form and structure. The

clypeus is impressed immediately below the eyes, and slightly prominent above the falces, and its height rather exceeds half that of the facial space; the lateral pairs of eyes are seated on strongish tubercles, and the foremost one of each appears to be the largest of the eight; the space between those of the hind central pair is very slightly smaller than that between each and the hind lateral on its side; those of the fore central pair are contiguous to each other, and each is the same distance from the hind central on its side as the hind centrals are from each other. The colour of the cephalothorax and falces is yellow-brown, and that of the legs and palpi is yellow. The legs are furnished with hairs, and are not very strong, but moderately long; their relative length is 1, 4, 2, 3. The palpi have the radial joint of peculiar and characteristic form; it is stronger than the cubital, and has a small, prominent, sharp spine-like apophysis from its outer extremity; its fore extremity is produced into a slightly curved, strongish, obtusely pointed apophysis; its inner extremity is protuberant and strong, and from its hinder extremity there issues a strong, longish, curved, tapering, sharp-pointed, spiny apophysis, which, curving over the palpal organs, looks at first as if it were part of them; but on closer inspection from different points of view, its union with the radial joint is plainly perceptible: the digital joint is of somewhat irregular form, having a kind of flat-sided lobe near its base, the flattened side directed outwards; this peculiarity of structure reminds one of that of the digital joint of *Neriene subtilis* (Cambr.), *N. conigera* (id.), and others: the palpal organs are well developed, rather complex, and are surrounded beneath by a long, slender, black spine, curved in a circular form. The abdomen is of a dull blackish hue, tinged with olive, and somewhat palest on the upperside, along which, towards the hinder part, are visible (in spirit of wine) some fine transverse angular lines, or chevrons. An adult female taken under the same stone as the male, resembled it in colour and other general characters; but the height of the clypeus was less, both positively and proportionally, and the epigyne was prominent, but not much so: possibly this may not be the female of the male above described.

A single example of each sex was found by myself under a stone, among the ruins of the Forum at Rome, in February 1865.

ERIGONE (NERIENE, Bl.) PROMINULA, sp. n. (Plate LXV. fig. 4.)

Male adult, length  $\frac{1}{17}$  of an inch.

The *cephalothorax* is of a deep black-brown colour, margined with black; the caput is rather prominent and produced; the summit of the elevated part slopes slightly and flattish forwards, and the occiput rather abruptly backwards. The height of the clypeus (which is impressed at the middle, but prominent at the lower margin) considerably exceeds half that of the facial space; the normal furrows and indentations are well marked.

The *eyes* are in four pairs, forming a transverse oval, and occupying the whole extremity of the cephalic prominence; those of the

hinder pair are on the posterior margin of the promiuece, and are separated from each other by about the length of an eye's diameter; those of the foremost pair are close together on the fore margin; those of the lateral pairs are seated obliquely, each hind lateral eye being removed about an eye's diameter from that of the hinder pair on its side; so that these four form a strongly curved row, and are equidistant from each other. All are seated on strongish tubercles, and are dark-coloured and indistinct.

The *legs* are moderate in length and strength, of a yellow colour, tinged with orange; their relative length is 4, 1, 2, 3; and they are furnished with hairs, of which a few have a semispinous character and are nearly perpendicular.

The *palpi* are paler and duller in colour than the legs, the digital joint and a portion of the radial are brown; the cubital and radial joints are very short, the latter being the stronger of the two; it is slightly and obtusely produced behind, and at its fore extremity are two pointed apophyses, one in front the longest and strongest, the other, of the nature of a sharp prominent tooth, on the outer side. The *abdomen* is of a broadish and somewhat flattened oval form; its colour is deep black; it is clothed perceptibly with hairs, and projects considerably over the base of the cephalothorax.

A single example, captured at Nuremberg by Dr. L. Koch, by whom it was forwarded to me for examination. In the form of the cephalothorax and the position of the eyes it bears some considerable resemblance to the genus *Theridion*. Among its near congeners it seems to be allied to *Walckenaëra humilis* (Bl.); the form of the cephalothorax and the radial joints of the palpi easily distinguish it from any other yet described species. Other examples have since been captured at Newhaven, Sussex, by M. Eugène Simon, in the spring of 1871; these were found on furze bushes, among the shoots covered with bloom.

ERIGONE (NERIENE, Bl.) INCONSPICUA, sp.n. (Plate LXV. fig. 5.)

Male adult, length  $\frac{1}{3}$  of an inch.

The cephalothorax, *falces*, *maxillæ*, and *labium* of this species are of a yellow-brown colour, the sternum being suffused with blackish; the legs are tinged with orange, and the abdomen is of a dull olive-greenish brown. It is closely allied to *Linyphia? microphthalmia* (Cambr.), both in size, general form, and structure, but may be distinguished by the larger size of the eyes, a difference of structure in the palpal organs, and also by the armature of the legs; in the present species the legs are furnished with no *spines*, properly so called, these being represented by bristles. It also bears considerable resemblance to *Linyphia decens* (Cambr.); but that species differs remarkably in the colour and clothing of the abdomen.

The radial joints of the *palpi* are produced at their extremity in front, in a rounded form, near which, close to the upper fore margin, is a single rather conspicuous series of bristly hairs directed forwards, and on the outer side are also some longer ones of the same nature; close to the outer side of this joint the palpal organs have a circu-

larly curved, strong, corneous process, from within the curvature of which there issues from these organs a small, black, pointed projection. The two hind central eyes are nearer together than each is to the lateral eye of the same row on its side.

This Spider is of one of those obscure species which occupy the debatable ground between *Linyphia* and *Erigone*. To both of these genera it is allied by strong characters; but, as it appears to me, it is more strongly linked to the latter than to the former. Probably it should form one of the genus *Bathypantes* (Menge); but the distinctions between this and *Erigone* (Westr.) have not been yet sufficiently characterized, although undoubtedly its special characters are widely different from those of some other groups of *Erigone*. A single example was received for examination from Dr. L. Koch, by whom it was captured at Nuremberg.

ERIGONE (NERIENE, Bl.) ROMANA, sp. n. (Plate LXV. fig. 6.)

Male adult, length 1 line.

The colour of the cephalothorax and sternum are deep brown; the abdomen is black, and the legs are orange yellow-brown; the rest dull brown, with a yellowish tinge. In general form and structure this Spider is of an ordinary type; the cephalothorax is rather short, and less flattened behind than in many others; the clypeus is equal in height to half that of the facial space, and is very slightly impressed immediately below the eyes: the eyes are rather prominent, being seated on tubercles; they are in the ordinary position, and not very unequal in size; those of the hinder row (which is longest and most curved) are equally separated, and each of those of the fore central pair (which are contiguous to each other) is separated from the hind central on its side by a space equal to that which separates those of the hind central pair; the eyes of each lateral pair are obliquely placed and contiguous to each other. The *legs* are moderately long and strong, and are furnished rather thickly with hairs, among which are some very slender, diaphanous, erect, spine-like bristles. The *palpi* are moderately long and not very strong; the cubital is longer and stronger than the radial joint, and slightly bent: the radial has its upper extremity produced into a long, not very strong, nearly straight, tapering apophysis, equal in length to both radial and cubital joints together, and its point, which is sharp (when looked at sideways) and corneous, bends a little downwards; this apophysis projects over the digital joint very prominently: the digital joint is large, and the palpal organs are well developed and rather complex; a strong, circularly coiled, black spine issues from a roundish corneous lobe on their outer side, and a smaller curved spine is visible within the coil of the former. The *falces* are strong, rather long, and vertical. The abdomen is oval, black, and glossy, and nearly double the length of the cephalothorax. The female resembles the male in general characters and colour. The epigyne is prominent, and, when looked at in profile, projects visibly beyond the surface of the abdomen, and with a backward direction; the genital aperture is also characteristic.

The form of the radial joint of the palpus in the male is very strongly characteristic of this species, and affords an easy character by which to determine it. An adult example of each sex were found by myself under stones in the baths of Caracalla at Rome, in February 1865.

ERIGONE (NERIENE, Bl.) SILA, sp. n. (Plate LXV. fig. 7.)

Male adult, length  $\frac{1}{15}$  of an inch.

The colour of this very distinct species is yellow-brown, the legs and palpi being pale yellow, tinged with dull orange. In its general form and structure it is of the ordinary type; but the strongest distinct character is furnished by a prominent, somewhat oval, prow-like projection of the upper part of the clypeus, just beneath the eyes; the profile line of the thorax behind the eyes is rather hollow; and the hind slope is abrupt. The eyes are in four pairs, just above and behind the clypeal prominence, and do not differ greatly in size; those of the fore central pair are smallest, and rather difficult to be distinguished; those of the hind central pair are rather nearer to each other than each is to the hind lateral on its side; those of each lateral pair are placed obliquely, and are contiguous to each other. The *legs* are rather short, moderately strong, and furnished sparingly with hairs only.

The *palpi* are short; the radial and cubital joints are of about equal length, the former being much the strongest, spreading outwards in a somewhat obtusely angular form, and produced in a rather curved, blunt-pointed form at the extremity on the upperside; the digital joint is rather large; and the palpal organs are highly developed and tolerably complex; a longish, black, curved, sharp-pointed spine issuing from near their extremity on the outer side forms a bold sweep round them; there are also several other spiny corneous projections in connexion with these organs. The abdomen is oval, rather large, and of a somewhat flattened form; and its upper surface is covered by a coriaceous, finely punctured integument very sparingly furnished with short fine hairs.

An adult male of this Spider was received from Dr. L. Koch, by whom it was found near Nuremberg, Bavaria.

ERIGONE (WALCKENÆRA) PALLENS, sp. n. (Plate LXV. fig. 8.)

Male adult, length  $\frac{1}{13}$  of an inch.

The whole of the fore part of this Spider, including the legs and palpi, are of a brightish but pale yellow-brown colour, the abdomen being of a sooty drab, tinged with yellow-brown.

The general form and structure is sufficiently ordinary, resembling nearly that of *E. scabricula*, Westr. (*W. aggeris*, Cambr.), and others; but it may be distinguished from others having a somewhat similar conformation of the cephalothorax by its colour, as well as by the structure of the palpi.

The fore part of the caput has scarcely any distinct elevation, but is rather bluff and rounded; the height of the clypeus is scarcely that of half the facial space: the eyes are in the ordinary position,

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and in the usual four pairs; those of the fore central pair are very minute and contiguous to each other, and are in a straight line with the foremost eyes of the two lateral pairs, which are slightly the largest of the eight; those of the hinder (or upper) pair are separated by rather more than an eye's diameter from each other; a long, narrow indentation, of a tapering form, runs backwards from a little above and behind each hinder eye of the two lateral pairs.

The *legs* are moderately long, rather short, and are furnished with hairs and a few slender erect bristles. The *palpi* are short; the radial is much stronger, though about the same length as the digital joint; the former has its extremity on the upperside divided (or, as it were, cleft), leaving two points; that towards the outer side is the strongest and most prominent, while the inner one adheres more closely to the digital joint. These two points give the fore extremity of the radial joint a strongly notched appearance. The palpal organs are well developed and prominent, but not very complex; they consist chiefly of a large, somewhat globular, shining, corneous lobe, with the fore part of which is connected a small, black, somewhat curved prominent spine.

The female resembles the male, except in the rather less convexity of the caput, the eyes being thus more closely grouped, though relatively in the same position; the form of the sexual aperture is characteristic, and may be understood better from the figure in the engraving than from any description that could be given.

Adults of both sexes were received from Dr. L. Koch, by whom they were captured in the neighbourhood of Nuremberg.

ERIGONE (WALCKENAËRA) BISSISSA, sp. n. (Plate LXV. fig. 9.)

Male adult, length  $\frac{1}{8}$  of an inch.

The cephalothorax, falces, maxillæ, and sternum of this species are of a yellow-brown colour, the *legs* and *palpi* being yellow-brown, tinged with red. The *abdomen* is of a short oval form, very sparingly furnished with hairs, and of a dull (though shining) greenish sooty-black colour. The *caput* is not elevated, but is simply rounded off on all sides, the occiput being evenly confluent with the thorax; the normal grooves and furrows are indistinct; two longish, narrow, slightly curved, longitudinal indentations run backwards from between the lateral and hind central pairs of eyes; on the sloping space between the eyes of the fore and hind central pairs are some short hairs; the height of the clypeus appeared to be less than half of that of the facial space; the eyes of the hind central pair are about one eye's diameter from each other; the fore lateral eyes are the largest of the eight, and are in a straight line with those of the fore central pair, which are very small, indistinct, and contiguous to each other, and each is separated from the fore lateral eye on its side by a space equal to its own diameter.

The *legs* are moderately long and strong, their relative length 4, 1, 2, 3, and furnished with hairs.

The *palpi* have the radial and cubital joints very nearly of equal length; but the former is greatly the strongest; it is produced ob-



tusely behind, and to a considerably greater extent in front, where it terminates with two points or cusps; the outer one of these is the most prominent, largest, strongest, and slightly the longest; the inner one is curved, and adheres more closely to the surface of the digital joint; these cusps give the fore extremity of the joint a deeply emarginate appearance; and the colour of the produced portions is deep brown: the digital joint is large and dark brown. The palpal organs are prominent, but not very complex, with a short, strong, prominent, and slightly curved, black, spiny point at their extremity.

An adult male of this Spider was sent me for examination by Dr. Koch, by whom it was found at Bayreuth, in Bavaria. It is allied to *Walckenaëra ignobilis* (Cambr.), and very nearly to *Erigone insecta* (L. Koch); but differences in the structure of the palpi will serve, with other specific characters, to distinguish it.

ERIGONE (WALCKENAËRA) GRÆCA, sp. n. (Plate LXV. fig. 10.)

Male adult, length  $\frac{3}{4}$  of a line.

The colours of this small species are those common to very many others. Cephalothorax, falces, labium, maxillæ, and sternum deep yellow-brown and glossy. Legs dull pale yellowish brown. Abdomen of a rather sooty brown-black. Its general form is very nearly that of *Walckenaëra aggeris* (Cambr.), but it is of rather a more slender build: the eyes are in the ordinary four pairs; the foremost eyes of each of the two lateral pairs are the largest, and are in a straight line with those of the fore central pair: the height of the clypeus is equal to one half that of the facial space; and from behind, and a little above, each lateral pair of eyes a long and rather strong indentation runs backwards and defines the cephalic elevation. The legs are rather long and slender, and furnished only with hairs. The palpi are similar in colour to the legs; they are not very long nor strong; the radial is much stronger than the cubital joint, and is broadly and obtusely produced at its upper fore extremity, a little towards the inner side. In this it differs from all others with a somewhat similar form of cephalothorax yet known to me; the digital joint is rather small, and of a roundish oval form; the palpal organs are not very complex, consisting chiefly of a roundish corneous lobe, at the extremity of which, beneath the fore margin of the digital joint, is a blackish, curved, pointed spine.

Two adult males of this little Spider were found by myself beneath stones on the island of Corfu, in the spring of 1865.

ERIGONE (NERIENE) ALEXANDRINA, sp. n. (Plate LXV. fig. 11.)

Male adult, length  $\frac{3}{4}$  of a line.

The cephalothorax of this Spider is of ordinary form, very like that of *Nerienne pygmæa* (Bl.), *N. latebricola* (Cambr.), and others; the clypeus is full and rounded, and its height equals half that of the facial space; the occiput is slightly gibbous, and a strong indentation runs backwards from immediately behind each lateral pair of eyes; it is of a bright yellow-brown colour, the normal grooves and indentations marked by dusky, ill-defined lines. The eyes are not very unequal in

size; they are in the usual four pairs, forming, when looked at from the front, two rows, the upper one longest and strongly curved, the lower one nearly straight; the space between the two of the hind central pair is rather less than that between each and the hind lateral on its side; those of the fore central pair are the smallest of the eight, and are contiguous to each other; and those of each lateral pair are placed obliquely and contiguous to each other. *Falces* strong and massive, and similar in colour to the cephalothorax. *Legs* moderately long and strong; their relative length is 4, 1, 2, 3; those of the fourth pair in the female appeared to be longer in proportion than those of the male; they are furnished with hairs, and are not very dissimilar in colour to the cephalothorax, but are more strongly tinged with reddish orange colour. The *palpi* are short, moderately strong, and similar in colour to the legs; the radial is equal to the cubital joint in length, but much stronger, and has a small, nearly straight, tapering apophysis near the middle of its fore extremity; and its outer extremity is also a little produced, giving it rather a pointed appearance when looked at from the front; the digital joint is small and of an oval form; and the palpal organs are not very complex, though well developed. The sternum is heart-shaped, glossy, very convex, and of a dark yellow-brown colour. The abdomen is oval and moderately convex above; it is of a dull sooty brown colour; and when in spirit of wine some examples show various pale transverse lines on the hinder part of the upperside.

The female resembles the male, except in being larger; and the genital aperture is of characteristic form.

Adults of both sexes were found by myself among water-weeds in a swamp near Alexandria, Egypt, in 1864.

ERIGONE (WALCKENAËRA, Bl.) SIMONII, sp. n. (Plate LXV. fig. 12.)

Male adult, length 1 line.

The cephalothorax of this very distinct species is of a yellowish red colour; the legs, palpi, falces, and maxillæ yellow; the sternum somewhat darker; and the abdomen (which is rather large and considerably convex above) is of a bright brick-red, finely mottled and marked above with paler spots and lines, not very visible except in spirit of wine. The *caput* is a little elevated; the hinder slope of the elevation is long and gradual, forming a rounded occiput. The height of the clypeus is nearly two thirds of the facial space; and it is slightly impressed in the middle, forming a curved profile line; a deep longitudinal excavation or indentation, of a tapering form, runs backwards from each lateral pair of eyes.

The *eyes* are seated on black spots on the fore slope of the elevation of the *caput*; those of the hinder pair are near the summit, those of the fore central pair on the fore margin; these are separated from those of the hinder pair by the same space that separates these last from each other; those of the lateral pairs are placed obliquely, and a little below the level of the fore centrals, when looked at from the front.

The *legs* are long and slender; their relative length 4, 1, 2, 3, those of the fourth pair being perceptibly the longest; they are furnished sparingly with hairs; each genual joint has a short black bristle on its fore side; and another similar one is placed about the middle of the uppersides of the tibiæ.

The *palpi* have the cubital joints clavate, short, and bent downwards; the radial is of about equal length with the cubital, and is produced at its extremity into two short points, one on the inner, the other on the outer side, forming a strongly emarginate margin: the digital joint is large and of an irregular and unusual form; it has a large, sharp-pointed, nearly concave prominence towards the extremity on the outer side, and another at its base on the same side, whose extremity is almost in contact with the fore extremity of the radial joint; these prominences run together; and the upper line of communication is black and fringed with short strong bristly hairs: the palpal organs are very prominent, well developed and complex; a fine black spine issues from near their fore extremity, and curves backwards and inwards with a large, prominent, circular sweep. The *sternum* is similar in colour to the abdomen. The *falces* are rather long, moderately strong, straight (?), vertical, and with a few *very* minute teeth near their extremity on the inner side.

Examples of both sexes of this Spider were received in 1866 from M. Eugène Simon, by whom they were captured near Paris; and a single adult male was subsequently sent me for examination by Dr. L. Koch, by whom it was found at Nuremberg.

The female resembles the male in colours; but the abdomen is far more convex above, and the genital aperture is of a bright deep red-brown colour.

ERIGONE (NERIENE) SARCINATA, sp. n. (Plate LXV. fig. 13.)

Male adult, length 1 line.

This Spider is nearly allied to *Nerienne excisa* (Cambr.): like that species, there is a protuberance or gibbosity on the back part of the caput; but in the present species this gibbosity is situated nearer to the thoracic junction, and is divided from the fore part of the caput by a distinct and rather deep oblique cleft. It is also, when looked at from above and behind, pointed at its fore extremity; the portion of the caput between the cleft and the hind central eyes is also rather gibbous, that part and the outer area forming a longish uniform slope to the clypeus, which is less in height than half that of the facial space. The colour of the cephalothorax is yellow-brown, the gibbosity of the caput being paler. The *falces* are neither very long nor strong, and are similar in colour to the cephalothorax. The *legs* are long, relative length 4, 1, 2, 3, moderately strong, yellow in colour, and furnished with hairs; there is a single short, slender black bristle at the fore extremity, on the upperside, of the genual joints, and a few long, diaphanous, pale, slender erect bristles on other parts of the legs.

The *palpi* are moderately long and strong; the cubital is upwards of three times the length of the radial joint, which is slightly pro-

duced in a curvilinear form on the inner extremity; and at the middle of the fore extremity is a small corneous-looking prominent point or tooth. The digital joint is short, oval, and small; the palpal organs are well developed, but not very complex. The form of the palpi distinguishes this Spider readily from *N. excisa*.

The colour of the palpi is the same as that of the legs.

The abdomen is oval, and projects a good deal over the base of the cephalothorax; it is of a sooty yellow-brown colour, marked with some transverse curved lines on the hinder part of the upperside (which are probably only visible in spirit of wine).

An adult male of this very distinct species was received from Dr. L. Koch, by whom it was found at Nuremberg.

ERIGONE (NERIENE, Bl.) DIGITATA, sp. n. (Plate LXVI. fig. 14.)

Male adult, length  $\frac{1}{19}$  of an inch.

The whole of this Spider, except the legs and palpi, which are dull greenish yellow, is of a dull greenish sooty-black colour, the abdomen being darker than the rest and sparingly furnished with hairs.

The cephalothorax is elevated in front, the upper part of the caput being rounded, with a deep and conspicuous longitudinal indentation on either side a little below the summit; the caput is furnished with a few short bristly hairs; and the clypeus and eye area are bluff and rounded. The *eyes* are placed on the fore part of the caput, in a somewhat oval group, considerably below the summit, and a little below the midway point of the facial space: the height of the clypeus appeared to be slightly greater than half the facial space, and slightly less than the space from the hind central eyes to the summit of the caput; the hind central eyes are about level with the lateral indentations, and are separated from each other by about the length of an eye's diameter; and about the same distance below them is the fore central pair, the eyes of which are a little smaller and close together; those of the lateral pairs are placed obliquely, the hinder one of each being further from the hind central on its side than the hind centrals are from each other.

The *legs* are slender, and their relative length is 4, 1, 2, 3, those of the fourth pair being perceptibly the longest.

The *palpi* are rather suffused with a greenish sooty hue; the radial joint is stronger than the cubital, enlarged at its extremity, which is produced in front, towards the inner side, into a pointed finger-like apophysis; and towards the outer side is a much shorter but stronger apophysis, the extremity of which is squared off. These projections, and the adjacent portion of the joint, are of a reddish colour; the digital joint is small; the palpal organs are well developed and complex, with a small spiral black spine beneath their extremity.

The *falces* are rather long, but not very strong, sloping towards the extremity on the inner side (where there are a few fine sharp teeth), perpendicular, a little divergent when looked at from the front, and about equal in length to the height of the facial space.

A single example of this Spider was forwarded to me for exami-

nation by Dr. L. Koch, by whom it was found near Nuremberg. It is remarkable from its combining the characters of the *Neriene* and *Walckenaëra* groups in a form and degree that I have not before noticed, having the elevated caput of the latter and the eye-position of the former. In this respect it groups with *Neriene cornuta* and *N. bituberculata*; but the divided caput of these two species, as well as the forms of their palpi, distinguish them at a glance.

ERIGONE (WALCKENAËRA) KOCHII, sp. n. (Plate LXVI. fig. 15.)

Male adult, length  $\frac{1}{3}$  of an inch.

This Spider, supposed by Dr. Koch to be *W. unicornis* (Cambr.), is certainly very nearly allied to it, and bears great resemblance to it in the peculiar character of the cephalic eminence; but it differs remarkably, both in the special form of that portion of its structure and in the form and structure of the palpi and palpal organs. In colour the two species are alike; but the present is rather the largest; the perpendicular eminence which issues from the middle of the space occupied by the eyes is much stronger and more conspicuous than in *W. unicornis*, but is (as in that species also) bifid or strongly notched at its extremity; the limbs of the bifid portion, however, are longer and more divergent; and consequently the notch is deeper and larger; near the base in front this projection is prominent, and has some short hairs on the prominent part; it is also placed rather further back upon the caput than in *W. unicornis*, being closer to the eyes of the hinder than to those of the foremost pair. Looked at from above, the extremity of each of the limbs of the bifid part is very shining and much resembling an eye.

The *palpi* differ remarkably in the structure of the radial joint from those of *W. unicornis*; it is very short, and very narrow at its junction with the cubital joint, whence it enlarges suddenly, and has two long, strong apophyses from its extremity, a little on the inner side; the outermost of these is rather the shortest, and is bifid at its extremity, one limb of the bifid part being longer than the other and of a deep black-brown colour, but not so strong; the other apophysis adheres more closely to the digital joint, and is pointed at its extremity, and gibbous on its outer and upper edge. The palpal organs are highly developed and complex, and have a black filiform spine coiled round their extremity on the outer side.

A single example of this interesting species was received for examination in 1868 from Dr. Koch, by whom it was found at Nuremberg, and after whom I have taken the liberty of naming it. Very lately (May 1872) I have received another example of it from Warsaw, where it was found by M. Taczanowski, "Conservateur" of the Zoological Museum at Warsaw, by whom it has been most obligingly submitted to my inspection, among many other rare and interesting forms of this genus.

ERIGONE (WALCKENAËRA) MONODON, sp. n. (Plate LXVI. fig. 16.)

Male adult, length  $\frac{2}{3}$  of a line.

Cephalothorax dull yellow-brown; legs and palpi pale dull yellow, with a brownish tinge; abdomen black.

The upper part of the caput is elevated into a not very high conical eminence, which slopes all round gradually into the sides; the summit is furnished pretty thickly with hairs. The eyes are placed at the base of the cone, almost forming a ring round it; they are in four pairs; those of the foremost pair equally divide the height of the facial space, and are small and not quite contiguous to each other; those of each lateral pair are contiguous to each other and are the largest of the eight; each eye of the posterior pair is placed a little above and behind the hinder eye of the lateral pair on its side, the space between the posterior eyes being thus much greater than that between each and the lateral eye nearest to it. Legs moderately long, rather slender, and furnished with hairs only. The palpi are not very long; the radial joint is produced over the base of the digital into a broad, rather oblong, oval form, slightly emarginate at its fore extremity, the inner corner of this portion being produced into a sharp-pointed corneous spine, which bends round sharply outwards, and its prominent point extends beyond the outer corner of the emargination. The cubital joint has a single small tapering bristle at the edge of its fore extremity on the upperside, directed downwards; the digital joint is not very large, and of oval form; the palpal organs are neither very prominent nor complex.

An adult male of this very distinct little species was received from Dr. L. Koch, by whom several examples have been found in the neighbourhood of Nuremberg.

ERIGONE (WALCKENAËRA) SCURRILIS, sp. n. (Plate LXVI. fig. 17.)

Male adult, length  $\frac{1}{4}$  of an inch.

The *cephalothorax* is large and bluff before; and the caput is elevated (principally on the occiput) into a considerable subconical eminence, which leans rather backwards; the profile line from the summit of this eminence to the fore central pair of eyes is sloping, and very slightly impressed below the middle; from this point to the margin of the clypeus it runs in a slightly convex form; the face and upper portion of the elevation is furnished with strong bristly black hairs, those nearest the summit spreading over the sides and behind, where several, stronger and longer than the rest, droop and fall backwards like a queue. The *eyes* are all very minute, and seated on black spots; those of the fore central pair are the smallest of the eight, and are placed a little below the commencement of the eminence on the caput; those of each lateral pair are seated obliquely and are in the same straight line as the fore centrals; above each lateral pair, and at about the same distance from them as they are on either side from the fore central pair, is placed one of the hinder pair of eyes; these are widely removed from each other, on the sides of the lower part of the subconical elevation of the caput, and, with the fore centrals, form as nearly as possible (when looked at from the front) an equilateral triangle.

The *palpi* are moderately long and strong; the cubital joint curves forwards, and has some coarsish dark hairs on its outer side; it is longer than the radial joint, and slightly clavate at its fore extremity: the radial, though shorter, is stronger than the cubital, and is a little produced at its fore extremity, where it terminates in two small reddish-brown prominent points, the outer one of these being the longest and strongest; this joint has also some longish coarse hairs near its base on the outer side; the digital joint is not large; and the palpal organs are well developed and rather complex, of a reddish-brown colour, and with a short, curved, black, corneous, spiny process at their extremity.

The *abdomen* is clothed rather more conspicuously with hairs than is usual with Spiders of this genus; but the form and structure of the legs, falcæ, maxillæ, and labium is of the ordinary character. The colour of the cephalothorax and other fore parts is, in the example described, of a pale yellowish white, the abdomen being of a pale dull sooty black; but as it had evidently not long effected its last change of skin, the paleness of colouring cannot be taken as a specific character.

The position of the eyes of the upper pair, with the form and clothing of the cephalic eminence and the structure of the palpi, make this species easily recognizable.

A single example was sent me for examination by Dr. L. Koch, by whom it was found near Nuremberg.

ERIGONE (WALCKENAËRA) SIMILIS, sp.n. (Plate LXVI. fig. 18.)

Male adult, length  $\frac{1}{4}$  of an inch.

The fore part of this Spider is of a rich deep brown; the legs and palpi (except the digital joints) orange-coloured, and the abdomen dull greenish sooty black, with pale yellowish lines visible, probably only after immersion in spirit of wine. The upper part of the caput is elevated, and the clypeus bluff, rounded, and prominent; and a strong indentation, running backwards above and behind each lateral pair of eyes, divides the elevation of the caput laterally from the lower part, while a slight transverse groove divides it from the lower part in front; the clypeus and upper part of the caput is smooth and glossy, and rather paler than the rest, all of which is covered with minute punctures, as also is the sternum, on which, however, the punctures are of a coarser nature. The eyes are in the usual position—when looked at from the front, nearly a square, the upper side being rather shorter than the lower, the other sides intermediate in length between the two. The legs are moderately long and strong, and are furnished with hairs and a few fine erect bristles.

The *palpi* are moderate in length; the cubital joint is short; the radial is greatly produced at its upper extremity, covering the greater part of the digital joint; its exact form near the extremity was very difficult to be seen satisfactorily in the only example that has come under my notice; but it appeared to curve round from the inner to the outer side, and terminate in a sort of point, there being within the curvature a prominent pale and somewhat corneous projection;

the outer side of the produced part of the radial joint also has a blunt, angular, prominent point. The digital joint is not large; the palpal organs are rather complex, and have, among others, a strongish but short curved black spine near their extremity on the outer side.

The female resembled the male in the punctured thorax and sternum, and in colours; but the caput was less elevated; and the only example of this sex (♀) examined was rather smaller, though adult.

An adult male and female were received from Dr. L. Koch, by whom they were found near Nuremberg, Bavaria. It is very nearly allied to, but quite distinct from, *Walckenaëra latifrons* (Cambr.).

ERIGONE (WALCKENAËRA) PRÆGRACILIS, sp. n. (Plate LXVI. fig. 19.)

Male adult, length  $\frac{1}{20}$  of an inch.

The whole of the fore part of this Spider (except the legs and palpi) is of a dark greenish black-brown colour, the falces being rather the palest and the sternum the darkest. The legs are rather long (their relative length 4, 1, 2, 3), and far slenderer than usual in this genus; they are of a pale yellow colour, and are furnished sparingly with short hairs; the abdomen is black.

The *cephalothorax* has the caput elevated; the elevation is (looked at in profile) sloping and flattish in front, and sloping but rounded behind; it is constricted on the sides, and has a deep longitudinal groove or excavation running backwards from each lateral pair of eyes and reaching to the occiput; the clypeus is rather prominent and rounded, and its height exceeds half that of the facial space.

The eyes are dark-coloured and difficult to be seen; the hind centrals are widish apart, and seated on the upper fore margin of the cephalic eminence; the fore centrals are the smallest and seated on a strong tubercle; those of each lateral pair are placed obliquely, the fore one slightly below the straight line of the fore centrals.

The palpi are slender: the cubital joint is short, but slightly longer than the radial; it is bent forwards (or downwards) and has a minute prominent point beneath its base, when looked at in profile. The fore extremity of the radial joint is produced into a long, rather narrow apophysis, which reaches obliquely over the digital joint, extending to half its length; it is bifid at its extremity; the outer or lower limb of the bifid part is much the longest, the other limb being a mere short, sharp, prominent point. From beneath the outer side of the radial apophysis there issues a strong reddish-coloured corneous process, whose somewhat pointed extremity curves upwards by the side of the bifid extremity of the apophysis; the radial joint is also slightly gibbous in front, towards the outer side; and the gibbous portion is furnished with a group of a few longish coarse hairs. The palpal organs are complex and prominent, and have a double, circularly curved, strongish black spine near their extremity.

The sternum is convex, but has a large, shallow, circular indentation forwards: possibly this may have been the result of injury.



A single example of this species was received for examination from Dr. L. Koch, by whom it was captured at Nuremberg. It is nearly allied to *W. picina* (Bl.), but differs in the structure of the palpi, as well as slightly in the form of the cephalothorax.

ERIGONE (WALCKENAËRA) SALTUENSIS, sp. n. (Plate LXVI. fig. 20.)

Male adult, length 1 line =  $\frac{1}{12}$  of an inch; female adult,  $\frac{1}{9}$  of an inch.

This species is closely allied to *Walckenaëra minima* (Cambr.) (*W. pusilla*, Westr.), but is larger, and, though resembling it a good deal in general appearance, differs in some well-marked characters.

The *cephalic eminence* is broad, but not very high. The transverse line of the summit (when looked at from the front) is slightly hollowed; it is also constricted laterally at its base, and has a well-marked longitudinal indentation, which runs backwards from each lateral pair of eyes, besides a considerable excavation on either side beneath the occiput. The clypeus is nearly perpendicular from a very little way below the fore central eyes; and its height is nearly two thirds of that of the facial space. The sloping and vertical space between and below the four central eyes is clothed with short, strong, divergent hairs.

The *eyes* of the hinder or upper pair occupy the fore corners of the cephalic eminence, and are thus very wide apart, as wide apart as, or even wider than, the two lateral pairs; these and the eyes of the hinder pair form a rectangle whose transverse diameter is nearly double that of its longitudinal one. The eyes of the fore central pair are the smallest of the eight, near together, and situated a very little above the straight line of the lateral pairs.

The *legs* of the fourth pair are perceptibly longer and slenderer than those of the first; their relative length is 4, 1, 2, 3; and their colour is a dull orange-yellow tinged with brown; they are furnished with hairs; and a short, erect, black, spiny bristle issues from near the centre, on the upperside, of the tibiæ of the fourth pair.

The *palpi* are strong; the cubital joint is clavate and rather gibbous on the upperside: the radial joint is shorter and less strong than the cubital, and has its upper extremity slightly produced; the produced part is emarginate at its extremity, and has a small tubercular prominence near its base, on the inner side; this production and prominence are of a deep red-brown colour, the rest of the joint being pale yellow-brown: the digital joint is rather large, and has a conical prominence at its base, on the inner side. The palpal organs are rather complex; they have a curved corneous process at their base near the extremity, on the outer side, of the radial joint, and a short, prominent, tapering black spine, curved in a somewhat circular form, at their outer extremity.

The *falces* are strong, straight, perpendicular, and equal in length to the height of the clypeus.

The colour of the cephalothorax is dark brown, mixed with blackish and tinged with yellow, the upper part of the cephalic

eminence being paler than the rest. The falces, maxillæ, and labium are yellow-brown; and the sternum is suffused with black.

The abdomen is oval, moderately convex above, and sparingly clothed with hairs; its colour is black, mottled with pale whitish, and with some transverse angular lines on the hinder part of the upperside, near the centre of which is a rectangular figure formed by four depressed dots.

The female is much larger than the male, and has the caput distinctly elevated, though not to nearly so great an extent as that of the male; the lateral pairs of eyes also in the female are wider apart, in comparison with the eyes of the hinder pair, than those of the male; the form of the genital aperture is distinctively characteristic.

An adult male and female were received for examination from Dr. L. Koch, by whom they were captured near Nuremberg.

ERIGONE (WALCKENAËRA) CITO, sp. n. (Plate LXVI. fig. 21.)

Male adult, length  $\frac{1}{17}$  of an inch; female adult, length  $\frac{1}{13}$ .

The *cephalothorax* is of a yellowish-green colour, with a sooty tinge, and narrowly margined with black; the *legs* are of a dull yellowish brown, as are also the palpi, falces, and maxillæ, the sternum and labium being more suffused with sooty brown. The colour of the abdomen is black-brown; it is also sparingly clothed with hairs, and somewhat rugulose.

The *caput* is elevated, the elevated portion being nearly the height of the clypeus, or about one third of the length of the cephalothorax; the upper part of the elevation is rounded, and (looked at in profile) a little receding; *i. e.* there is a strongish impression above the fore central pair of eyes; a patch between these eyes and those of the hind central pair (but nearer to the former) is thickly clothed with hairs, and there are a few short but prominent hairs on the occiput; just above and behind each lateral pair of eyes is a deep circular pit or depression, which has a white shining appearance, something like an eye, and around and behind these pits the surface is indented, the indentation running backwards, in a pointed form, to the occiput.

The *eyes* are placed on small black spots; the fore lateral are in a straight line with those of the fore central pair; those of the hind central (or upper) pair are rather wide apart, and just beneath the fore margin of the elevation; those of each lateral pair are placed obliquely on small tubercles; the fore centrals, which are contiguous to each other, are very small and difficult to be seen, and each of these is rather more than an eye's diameter from the fore lateral eye on its side. The *clypeus* is rather prominent, bluff, and rounded, and its height is nearly equal to half that of the facial space.

The *legs* are moderate in length and strength, as also are the *palpi*, whose cubital joints are rather clavate and bent, and much longer than the radials; these are short and prolonged at their fore extremity into two apophyses: one, rather on the inner side is long, tapering, pointed, and slightly curved outwards; the other (towards the outer side) is shorter, and terminates in a sharp black spiny point, with a small tubercle near its base. The digital joint

is of moderate size and ordinary form; the palpal organs are prominent and complex, with a small, slender, coiled black spine at their extremity. The *falces* are small, straight, and a little inclined backwards to the maxillæ, which, together with the labium and sternum, are of ordinary character.

The female resembles the male in colour, but is larger and devoid of the elevation of the caput; the form of the genital aperture is characteristic, but easier to be seen in the figure than to be made out from a description.

An adult example of each sex was received for examination from Dr. Koch, by whom they were captured near Nuremberg. It is allied to *Walckenaëra nemoralis* (Bl.), *W. implana* (Cambr.), and *Erigone blackwallii* (Cambr.), but may easily be distinguished by the form and structure of the palpi and other characters.

ERIGONE (WALCKENAËRA) BLACKWALLII, sp. n. (Plate LXVI. fig. 22.)

Male adult, length  $\frac{3}{4}$  of a line.

The *cephalothorax*, which is smooth and glossy, is large and elevated in front, rather flattened behind, and impressed laterally behind the lateral pairs of eyes; clypeus bluff and rounded, and its height is equal to (if it does not exceed) half that of the facial space; the space between the fore and hind central pairs of eyes is impressed, when looked at in profile; and the lower part of this space is clothed with hairs. The eyes are in the ordinary position; and immediately behind and above each lateral pair is a strong, somewhat circular pit or indentation. The general area occupied by the eyes is broader than long; *i. e.* the interval between the foremost eyes of the lateral pairs is greater than that between each of these and that of the upper pair on its side. The *falces* are not very large; they are placed considerably back, beneath the clypeus, and are inclined towards the sternum. The colour of the cephalothorax and *falces* is dark brown, with a yellowish tinge. *Legs* dull orange-yellow, rather short and moderately strong, furnished with hairs only. *Palpi* moderately long, strong, similar in colour to the legs, except the digital joint, which is deep brown. The cubital joint is much stronger than the radial; this last is very short, and has its inner extremity prolonged into a longish, slightly tapering, pointed, curved apophysis, the point directed outwards; on the outer extremity, towards the underside, is another, small, sharp-pointed, corneous apophysis, its extreme point being bent outwards. The digital joint is large and of an oval form; the palpal organs are well developed, but not very complex, with several corneous prominences and spines, a small circularly curved one of which latter is at their fore extremity. The *abdomen* is large, somewhat flattened, and projects considerably over the base of the cephalothorax; the greater part of its upperside is covered by a sort of coriaceous shield or separate integument similar to that in *W. nemoralis* (Bl.), to which species it is nearly allied; this shield is covered with minute punctures; four more conspicuous punctures form a quadrangle on the

centre, and a few short hairs are distributed over its surface. Its colour is deep brown above, of a somewhat bistre brown tint, the underside being blackish.

The female is rather larger than the male, but resembles it in colours, except that the abdomen is blacker; the cephalothorax is gibbous above in front, but, like all others in this genus, nothing like as elevated as in the male, though preserving its general characters; the form of the genital aperture is characteristic.

Adults of both sexes were received from Dr. Ludwig Koch, by whom they were captured near Nuremberg, in Bavaria. In accordance with Dr. Koch's wish, I have here (as in other instances) retained the name conferred upon this species, in compliment to Mr. Blackwall, by Dr. Koch in his MS. notes.

ERIGONE (WALCKENAËRA) ELEGANS, sp. n. (Plate LXVI. fig. 23.)

Male adult, length  $\frac{3}{4}$  of a line, or  $\frac{1}{16}$  of an inch.

*Cephalothorax* deep brown, approaching to black; the fore part bluff, rounded, and massive, with a distinct but not very large oval eminence on the upperside of the caput. The normal indentations are very strongly marked; and the lateral margins are depressed; these are all also otherwise indicated by blackish lines. The *eyes* are in the ordinary position: two are situated on the fore part of the upper side of the eminence on the caput; below each of these is a lateral pair, the eyes of which are contiguous and seated just below the junctional groove or impression between the eminence and the lower segment of the caput; those of the fore central pair are minute, contiguous, and nearly in a straight line with those of the lateral pairs: a strong elongated indentation runs backwards from just above and behind each lateral pair of eyes; and the height of the clypeus appeared to be slightly greater than one half of that of the facial space.

The *legs* are rather long, moderately strong, and of a pale yellow colour; they are furnished only with hairs.

The *palpi* are short, similar in colour to the legs, except the digital joints, which are dark brown; the radial is much stronger than the cubital joint, and, looked at from above and behind, is of a somewhat crescent-form, with a small black, sharp-pointed, tooth-like prominence in the centre of the hollow side, directed sharply inwards, between the horns of the crescent; this tooth-like prominence appeared to terminate with a pointed spiny bristle. The digital joint is moderate in size and of a short oval form, with apparently one or two subangular prominences near its base. The palpal organs are rather complex; on their outer side is a rather long, strongish, circularly curved black spine. The *fulces* are short, strong, subconical, and directed backwards beneath the clypeus. The *abdomen* is oval, and projects a good deal over the base of the cephalothorax; its colour is jet-black.

An adult male was received from Dr. L. Koch, by whom it was captured near Nuremberg, Bavaria.

## ERIGONE (WALCKENAËRA) ALPINA, sp.n. (Plate LXVI. fig. 24.)

Male adult, length  $\frac{1}{11}$  of an inch.

This species, which has the fore part of the cephalothorax divided into two segments, is allied to *W. cristata* (Bl.) and *W. latifrons* (Cambr.); but it may be easily distinguished by its larger size and the much larger proportion that the hinder segment of the cephalic eminence bears to the fore one. In this respect there is a great resemblance to *Erigone cucullata* (Koch); from this, however, it is easy to separate it, as the hinder segment in *E. cucullata* projects far more forwards than that in the present species.

The colour of the cephalothorax is dark yellow-brown, that of the abdomen (which is large, oval, and very convex above) being of a dull black colour, clothed with hairs. The legs and palpi are pale yellow, except the radial and digital joints of the latter, which are dark brown.

The hinder segment of the caput is large and rounded at its summit, the occipital line (in profile) a little sloping, the frontal line more vertical; the fore segment is not one third as strong as the hinder one, and it is a little prominent; its summit, as well as the upper fore margin of the hinder segment, is furnished thickly with strong hairs, which meet over the cleft between the two segments; this cleft is (when looked at in profile) equal in width to the breadth of the fore segment, but is wider at the top than at the base.

The *eyes* are placed in the usual four pairs: those of one pair, on the summit of the hinder segment, are wide apart; those of another pair, on the upper fore margin of the foremost segment, are dark-coloured and difficult to see; those of each lateral pair are contiguous to each other, and seated just below the base of the cleft on either side; behind each lateral pair is a large, longitudinal, somewhat oval excavation; and at its larger end (near the eyes) is a circular shining pit or depression.

The *palpi* are of ordinary length and strength: the cubital joint curves forwards; it is long and much enlarged (or clavate) at its fore extremity, near which, on the upperside, is a short, strong, black bristle; the radial joint is short, prominent behind, and produced in front into a large somewhat oblong apophysis with a sharply curved corneous-looking point issuing from its inner extremity and reaching to its outer one, between which and the base of this curved point is a somewhat circular excavation or emargination; this apophysis covers a considerable portion of the outer surface of the digital joint; and the outer surface of the two digitals are turned towards each other: the palpal organs are prominent and complex, with corneous spines, processes, and transparent membrane.

The *falces* are equal in length to the height of the clypeus; they are strong, straight, and with some fine teeth towards their extremities on the inner sides.

A single example of this Spider was found by myself high up on one of the mountains near Bruck-am-Muir, in Styria, in June 1865; and I have since received another for examination from Dr. Ludwig

Koch, by whom it was captured in the Tyrolese Alps, at an elevation of 6000 feet.

LIST OF SPECIES, WITH REFERENCES TO PAGE, PLATE, AND LOCALITY.

- Erigone arictans*, p. 748, Plate LXV. fig. 1. Nuremberg.  
 — *incomta*, p. 748, Plate LXV. fig. 2. Nuremberg.  
 — *forensis*, p. 749, Plate LXV. fig. 3. Rome.  
 — *prominula*, p. 750, Plate LXV. fig. 4. Nuremberg and England.  
 — *inconspicua*, p. 751, Plate LXV. fig. 5. Nuremberg.  
 — *romana*, p. 752, Plate LXV. fig. 6. Rome.  
 — *sila*, p. 753, Plate LXV. fig. 7. Nuremberg.  
 — *pallens*, p. 753, Plate LXV. fig. 8. Nuremberg.  
 — *biseissa*, p. 754, Plate LXV. fig. 9. Bayreuth (Bavaria).  
 — *græca*, p. 755, Plate LXV. fig. 10. Corfu.  
 — *alexandrina*, p. 755, Plate LXV. fig. 11. Alexandria (Egypt).  
 — *simonii*, p. 756, Plate LXV. fig. 12. Paris and Nuremberg.  
 — *sarcinata*, p. 757, Plate LXV. fig. 13. Nuremberg.  
 — *digitata*, p. 758, Plate LXVI. fig. 14. Nuremberg.  
 — *koehii*, p. 759, Plate LXVI. fig. 15. Nuremberg and Warsaw.  
 — *monodon*, p. 759, Plate LXVI. fig. 16. Nuremberg.  
 — *scurrilis*, p. 760, Plate LXVI. fig. 17. Nuremberg.  
 — *similis*, p. 761, Plate LXVI. fig. 18. Nuremberg.  
 — *pragracilis*, p. 762, Plate LXVI. fig. 19. Nuremberg.  
 — *saltucensis*, p. 763, Plate LXVI. fig. 20. Nuremberg.  
 — *cito*, p. 764, Plate LXVI. fig. 21. Nuremberg.  
 — *blackwallii*, p. 765, Plate LXVI. fig. 22. Nuremberg.  
 — *elegans*, p. 766, Plate LXVI. fig. 23. Nuremberg.  
 — *alpina*, p. 767, Plate LXVI. fig. 24. Bruck-am-Muir, Styria, and the Tyrol.

EXPLANATION OF THE PLATES.

PLATE LXV.

- Fig. 1. *Erigone arictans*.  
*a*, cephalothorax, in profile; *b*, left palpus, from inner side.  
 2. *Erigone incomta*.  
*a*, cephalothorax, in profile; *b*, cephalothorax and falces, from the front; *c*, *d*, left palpus in two positions.  
 3. *Erigone forensis*.  
*a*, cephalothorax and abdomen, in profile; *b*, ditto, from the front; *c*, abdomen (♀), in profile; *d*, genital aperture (♀); *e*, left palpus (♂), from outer side; *f*, radial and cubital joints of right palpus (♂).  
 4. *Erigone prominula*.  
*a*, cephalothorax, in profile; *b*, eyes, from the front; *c*, *d*, *e*, portions of palpi in different positions.  
 5. *Erigone inconspicua*.  
*a*, abdomen, in profile; *b*, ditto, from the front; *c*, *d*, left palpus in two positions.  
 6. *Erigone romana*.  
*a*, cephalothorax and abdomen (♂), in profile; *b*, abdomen (♀), in profile; *c*, genital aperture (♀); *d*, left palpus (♂), from outer side.  
 7. *Erigone sila*.  
*a*, cephalothorax and abdomen; *b*, caput, from above and behind; *d*, ditto, from the front; *e*, *f*, left palpus in two positions; *c*, portion of right palpus, in profile.  
 8. *Erigone pallens*.  
*a*, cephalothorax and abdomen, in profile; *b*, caput, from the front; *c*, right palpus, from outer side; *d*, portion of left palpus, in profile.

Fig. 9. *Erigone biscissa*.

*a*, cephalothorax and abdomen, in profile; *b*, caput, from the front; *c*, left palpus, from outer side in front; *d*, *e*, portions of ditto in two positions, from behind.

10. *Erigone græca*.

*a*, cephalothorax and abdomen, in profile; *b*, left palpus.

11. *Erigone alexandrina*.

*a*, cephalothorax and abdomen (♂), in profile; *b*, caput (♂), from the front; *c*, right palpus (♂), from the front; *d*, genital aperture (♀).

12. *Erigone simonii*.

*a*, cephalothorax and abdomen (♂), in profile; *b*, caput (♂), from the front; *c*, left palpus, from outer side; *d*, right palpus, from inner side.

13. *Erigone sarcinata*.

*a*, cephalothorax and abdomen, in profile; *b*, cephalothorax, from above and behind; *c*, ditto, from the front; *d*, left palpus.

## PLATE LXVI.

14. *Erigone digitata*.

*a*, cephalothorax, in profile; *b*, caput, from the front; *c*, eyes, from the front; *d*, cubital and radial joints of left palpus, from above and behind; *e*, ditto of right palpus.

15. *Erigone kochii*.

*a*, *b*, cephalothorax, in profile; *c*, caput, from the front; *d*, cephalothorax, from above and behind; *e*, right palpus; *f*, left ditto.

16. *Erigone monodon*.

*a*, cephalothorax and abdomen, in profile; *b*, caput, from the front; *c*, right palpus, from above and behind.

17. *Erigone scurrilis*.

*a*, cephalothorax and abdomen, in profile; *b*, left palpus; *c*, cubital and radial joints of right ditto; *d*, caput, from the front.

18. *Erigone similis*.

*a*, cephalothorax and abdomen (♂), in profile; *b*, cephalothorax (*id.*), from the front; *c*, *d*, *e*, palpi (♂) in different positions; *e*, genital aperture (♀).

19. *Erigone prægracilis*.

*a*, cephalothorax and abdomen, in profile; *b*, caput, from the front; *c*, right palpus; *d*, left ditto; *e*, portion of right ditto; *f*, cubital joint of palpus.

20. *Erigone saltuensis*.

*a*, cephalothorax and abdomen (♂), in profile; *b*, ditto (♀); *c*, caput, from the front; *d*, palpus (♂); *e*, *f*, genital aperture (♀).

21. *Erigone cito*.

*a*, cephalothorax and abdomen (♂), in profile; *b*, caput, from the front; *c*, *d*, *e*, portions of left palpus (♂) in different positions; *f*, genital aperture (♀).

22. *Erigone blackwallii*.

*a*, cephalothorax and abdomen (♂), in profile; *b*, caput (*id.*), from the front; *c*, *d*, *e*, left palpus (♂) in different positions; *f*, genital aperture (♀).

23. *Erigone elegans*.

*a*, cephalothorax and abdomen, in profile; *b*, caput, from the front; *c*, ditto, above and behind; *d*, left palpus, from outer side; *e*, right ditto, above and behind.

24. *Erigone alpina*.

*a*, cephalothorax, in profile; *b*, ditto, from the front; *c*, *d*, portions of left palpus in different positions.